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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,754

05/04/2005

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07/30/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

ARAQUE JR, GERARDO

ART UNIT

PAPER NUMBER

3689

MAIL DATE

DELIVERY MODE

07/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claim 1 – 18** are rejected under 35 U.S.C. 101. Based on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance to an examiner is that a § 101 process must (1) be tied to a particular machine or apparatus or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

To qualify as a § 101 statutory process, the claim should recite the particular machine or apparatus to which it is tied, for example by identifying the machine or apparatus that accomplishes the method steps, or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

There are two corollaries to the machine-or-transformation test. First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method

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claim patent-eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test. Second, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such as data gathering or outputting, is not sufficient to pass the test.

Here, applicant's method steps fail the first prong of the new test because the claimed invention fails to set forth a particular machine that is specifically configured/programmed to carry out the claimed invention. Specifically, the Examiner asserts that the current claim language can be interpreted that the user, not the processors, is performing the claimed invention.

Although, the applicant has amended the claim's to disclose, "by a user/recommender processors," the Examiner asserts that the term "by" is insufficient to disclose that the processor alone is performing the determining steps. That is to say, it is being understood that a user with the use of a processor is performing the claimed determining steps. As a result, since the user that performing the determining steps by using a computer it is being understood that the actions that the "user/recommender processors" are merely an insignificant extra solution activity.

Further, applicant's method steps fail the second prong of the test because there is no transformation of the data. It is asserted that the data has not been transformed into another state or into another object.

The applicant is reminded that:

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"Purported transformation or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representative of physical objects or substances.

(In re Bernard L. Bilski and Rand A. Warsaw Page 28)"

Moreover, the "transformation must be central to the purpose of the claimed process.

(In re Bernard L. Bilski and Rand A. Warsaw Page 28)"

4. **Claims 20 – 21** are rejected under 35 USC 101 since it is uncertain where a recommender falls under 35 USC 101, i.e. what statutory category it belongs in. 35 USC 101 clearly states that:

Whoever invents or discovers any new and useful **process**, **machine**, **manufacture**, or **composition of matter**, or any new and useful **improvement** thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The applicant argues that the rejection is improper because, although, the claim does not fall under a specific class it does not fall outside a statutory class. However, it is not clear if the recommender falls in a statutory class and may be only software, which is not statutory since software, per se, is not statutory. As a result, since it the claim can be understood to be only software then it does, indeed, fall outside a statutory class.

Consequently, it is asserted by the Examiner that the claim must specifically state a statutory class, i.e. process, machine, manufacture, composition of matter, or improvement.

In regards to **claim 21**, the Examiner asserts that there is nothing that is being additionally claimed. The applicant has failed to provide any structural limitations for the private video recorder to use the recommendation program. Since the private video recorder is being defined by the recommendation software and because there is no structure in the claims to define the private video recorder then the Examiner would have to consider that the private video recorder is merely software and software, per se, is not statutory.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 20 – 21** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In regards to **claim 20**, the Examiner is uncertain of what a "recommender" is. That is to say, is a "recommender" a system, process, apparatus, or etc.? For the purposes of examination the Examiner will understand **claim 20** to be a system (apparatus) claim.

Although the applicant argues that MPEP 2106 IVB states that an applicant is allowed to have an apparatus claim including functional limitations it is unclear on what structural elements are being disclosed to carry out those functional limitations.

Specifically, the Examiner is unable to determine whether the claimed processors are hardware or software. Upon reviewing the application and the drawings the

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processors are contained within the private video recorder, which the Examiner assumes to have its own processor (micro-chip). As a result, it appears to the Examiner that the applicant's claimed user profiler/recommender processors are nothing more than software. There is nothing in the specification or the applicant's remarks that specifically state that the recommender, user profile processor, and recommender processor are apparatuses or software.

Moreover, it would be unclear on what is being infringed. Specifically, as currently claimed, how would one skilled in the art determine whether they are infringing on software or hardware?

Therefore, the Examiner asserts that the applicant must state on the record that on whether the recommender, user profile processor, and recommender processor are apparatuses or software in order to properly examiner **claims 20 and 21** (which is discussed below).

8. **Claims 21** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in dependent form.

Further, and in reference to what was argued by the applicant, since **claim 21** is an improper dependent claim it would be unclear on what one would be infringing on. Would one be infringing on the recommendation software or the apparatus that is storing the recommendation software (private video recorder)? Further still, since there is a lack of structural elements it is uncertain on whether the private video recorder is an

apparatus. Although MPEP 2106 IVB may state that an applicant is allowed to have an apparatus claim including functional limitations it is unclear on what structural elements are being disclosed to carry out those functional limitations.

Additionally, the Examiner also asserts that it is improper to provide an independent claim that is claiming the sub-combination of the recommender and provide a dependent claim that claims a combination of a private video recorder with the sub-combination of the recommender. In other words, providing a dependent claim that falls outside the scope of the recommender is improper.

Therefore, the applicant is required to cancel, amend, or rewrite the claim in dependent or independent form in order to determine whether **claim 21** is further limiting the recommender (dependent claim), is an apparatus that contains the recommending software (independent), or whether the applicant is changing the sub-combination of the recommender to the combination of the private video recording with the sub-combination of recommender.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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10. **Claims 1 – 11 and 15 – 19** are rejected under 35 U.S.C. 102(e) as being anticipated by **Hane (US PGPub 2004/0083490 A1)**.

11. In regards to **claims 1 and 19**, **Hane** discloses a method and program of providing a recommendation of content to a user the method comprising the steps of:

determining, by a user profile processor, a user preference profile for a user **(Page 1 ¶ 13 wherein a profile creator is used to create a user preference profile)**;

determining, by a recommender processor, if a first content correlates with the user preference profile to determine if the first content has a high preference value **(see at least Page 3 ¶ 68 wherein a program is searched for a recommended based on the user preference profile)**; and

if the first content has a high preference value recommending the first content to a user **(see at least Page 6 ¶ 141; Page 7 ¶ 148 wherein programs that correlate with the user profile and have a high preference value are provided to the user and wherein the high preference value is determined based on how well the program correlates with the user preference profile)**; and

if the first content does not have a high preference value:

determining if the first content comprises at least a first characteristic having an associative correspondence to at least a second characteristic of a second content having a high user preference and recommending the first content to the user only if there is such an associative correspondence **(see at least Page 6 ¶ 140; Page 7 ¶ 148 wherein programs that are not ranked high when initially correlated with the user preference profile is reanalyzed in**

order to determine whether the program should continue to be recommended to the user based on various stored parameters [characteristics], including previous programs that have been stored/viewed; see also Page 4 ¶ 93 – Page 6 ¶ 132 wherein Hane discusses how the recommendation system allows for the system to extract information from the shows that the user enjoyed and uses this information in order to determine other shows that the use may enjoy as well. In other words, Hane discloses that the use initially inputs their parameters and the recommendation system begins to learn on the user's likes and dislikes. As the uses watches more shows, the system begins to take information from the these shows and applies them to other shows and recommends those shows to the user. That is to say, the system relates characteristics from one program to characteristics of another program. See also discussion below under Response to Arguments).

12. In regards to **claim 2**, Hane discloses wherein the first content is recommended to the user if only a single associative correspondence between the first characteristic and the second characteristic is determined (**see at least Page 6 ¶ 140; Page 7 ¶ 148 wherein if a associative correspondence is found the content will be recommended**).

13. In regards to **claim 3**, Hane discloses wherein only the associative correspondence is determined for the first characteristic and second characteristic (**see at least Page 1 ¶ 7; Page 2 ¶ 30 wherein the characteristic of why the program is**

being recommended may be at least because a specific actor appears in the program or keyword).

14. In regards to **claim 4**, **Hane** discloses further comprising the step of determining a user preference for the first content recommended from the associative correspondence and updating the user preference profile in response to the user preference (**Page 4 ¶ 94; Page 5 ¶ 113 - 116; Page 6 ¶ 130 wherein the system controller learns from the programs that have been selected to be recorded by the user and uses at least a morpheme analysis, for example, in order to determine various user preferences and is updated**).

15. In regards to **claim 5**, **Hane** discloses wherein the first characteristic is a first content description characteristic of the first content and the second characteristic is a second content description characteristic of the second content (**see at least Page 4 ¶ 101 wherein the characteristic of the content can be comprised of at least the contents of the program**).

16. In regards to **claim 6**, **Hane** discloses wherein the first content description characteristic is derived from a first textual description associated with the first content and the second content description characteristic is derived from a second textual description associated with the second content (**see at least Page 4 ¶ 99 wherein a text analysis process is used**).

17. In regards to **claim 7**, **Hane** discloses wherein the associative correspondence is determined in response to an identification of a correspondence between at least one word of the first textual description and at least one word of the second textual

description **(see at least Page 4 ¶ 99 wherein the results of the text analysis process is stored for use in determining a recommendation and uses the stored information, such as the information for the user “favorites”, in order to determine appropriate recommendations).**

18. In regards to **claim 8, Hane** discloses wherein the correspondence is determined in response to the at least one word of the first textual description having a similar meaning as the at least one word of the second textual description **(see at least Page 4 ¶ 98 wherein a morpheme analysis is used in order to use the definition of a word in order to determine the meaning of the explanation regarding each program).**

19. In regards to **claim 9, Hane** discloses wherein the correspondence is determined in response to the at least one word of the first textual description having an associative word correspondence to the at least one word of the second textual description, the associative word correspondence being determined from a database of word associations **(see at least Page 4 ¶ 98 – 99 wherein a word dictionary is used and stored within the system).**

20. In regards to **claim 10, Hane** discloses wherein the associative correspondence is determined in response to word combinations of at least one of the first and second textual content descriptions **(Page 4 ¶ 97 – 99 wherein brief explanations of the programs is used and stored into the system in order to determine the associative correspondence of the content items).**

21. In regards to **claim 11, Hane** discloses wherein at least one of the first and second characteristics is determined from a content analysis of the content **(Page 4 ¶**

97 – 99; Page 4 ¶ 101 wherein the system uses at least the contents of the program and brief descriptions in determining the recommendation).

22. In regards to **claim 15, Hane** discloses wherein at least one of the first and second characteristics is determined from a content broadcast channel **(Page 4 ¶ 97 wherein the characteristics can be derived from at least the channel of the program).**

23. In regards to **claim 16, Hane** discloses wherein the step of determining the associative correspondence comprises determining a plurality of associative correspondences between a plurality of characteristics of the first content and a plurality of characteristics of the second content **(see at least Page 4 ¶ 101 wherein the characteristics used can be comprised of the program title, cast of the program, type of the program, and contents of the program).**

24. In regards to **claim 17, Hane** discloses wherein the associative correspondence is further determined in response to a previous associative correspondence between content **(see at least Page 4 ¶ 87; Page 5 ¶ 109, 115 wherein the system uses information from user favorite programs in order to determine the associative correspondence for recommending programs).**

25. In regards to **claim 18, Hane** discloses wherein at least one of the first and second characteristics is chosen from the group of **(see at least Page 4 ¶ 101 wherein the cast of the program is used):**

- a. an actor;
- b. a character played by an actor; and

c. a location.

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. **Claims 12 – 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hane (**US PGPub 2004/0083490 A1**) in view of **Nicky Blackburn (Innovations; [Daily Edition])**.

28. In regards to **claims 12 – 14**, **Hane** discloses a system and method which analyzes the content of a program and uses the extracted information in order to determine whether the program should be recommended to the user based on stored information.

However, **Hane** fails to explicitly disclose:

wherein the content analysis comprises a content video image analysis, content audio analysis, and content video object analysis.

Blackburn discloses that it is old and well known use video and audio analysis as a means of comparing the captured data with information stored within the system in order to provide key information to a user.

It would have been obvious to one having ordinary skill in the art to include in the recommendation system and method of **Hane** the ability to capture video and audio as a means of analyzing content as taught by **Blackburn** since the claimed invention is

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merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

29. **Claims 20 – 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hane (US PGPub 2004/0083490 A1)** in view of **Robert Cravotta (Exploring the anatomy of multiprocessor designs)**.

30. In regards to **claims 20 and 21**, **Hane** discloses a private video recorder (**Page 1 ¶ 24**) comprising a recommender for providing a recommendation of content to a user, as discussed above.

However, **Hanes** fails to disclose the recommender comprising:

a user profile processor; and

a recommender processor.

Cravotta, however, discloses that it is old and well known to use multiple processors for computer system in order to provide more processing power than a single processor can accomplish. Multiple processors take advantage of the processing power by allowing the system to accomplish more tasks in less time by dividing the workload. One of ordinary skill in the art would have realized the advantages of using a multiprocessor system for the recommender, as taught by **Hane**, in order to take advantage of searching through the various characteristics in order to determine best content to provide to the user as fast and efficiently as possible.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a multiprocessor system, as taught by **Cravotta**, in

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the recommender system, as taught by **Hane**, in order to provide the content to the user as fast and efficiently as possible since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding the following limitations:

a user profile processor for determining a user preference profile for a user;

a recommender processor for determining if a first content correlates with the user preference profile so as to have a high preference value; and

if the first content has a high preference value recommending it to a user; and

if the first content does not have a high preference value:

determining if the first content comprises at least a first characteristic having an associative correspondence to at least a second characteristic of a second content having a high user preference and recommending it to the user only if there is such an associative correspondence;

the Examiner considers them to be nonfunctional descriptive subject matter. As a further note a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Specifically, the Examiner understands the claims to be directed towards a system and apparatus and, consequently, the data that is being processed does not add any further structural

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components to the claim. In other words, the type of data adds little, if anything, to the claim's structure, and, thus, does not serve as a limitation on the claims to distinguish over the prior art.

Response to Arguments

31. Applicant's arguments filed **4/27/2009** have been fully considered but they are not persuasive.

Information Disclosure Statement

32. The IDS submitted on **4/27/2009** has been considered.

Double Patenting Rejection

33. The Terminal Disclaimer submitted on 4/27/2009 has been accepted and made of record on 4/29/2009. As a result the double patenting rejection is withdrawn.

Drawing Objection

34. The drawing objections are withdrawn in view of the amendments.

Rejection under 35 USC 101

35. Rejections under 35 USC 101 have been maintained for the reasons stated above.

36. The rejection under 35 USC 101 for **claim 19** has been withdrawn due to amendments.

Rejection under 35 USC 112, second paragraph

37. Rejections under 35 USC 112, second paragraph, have been maintained for claims 20 and 21 regarding the uncertainty of recommender and the improper dependent claim 21. All others have been withdrawn.

Rejection under 35 USC 102

38. Applicant argues that **Hane** fails to disclose relating, "...characteristics of one program to characteristics of another program," in order to provide a program recommendation to a user.

However, the Examiner respectfully disagrees.

As discussed in the rejection above, **Hane** provides a system and method wherein a user inputs specific parameters so that the recommendation system is allowed to determine which programs to recommend to a user. However, **Hane** continues on to disclose that the recommendation system is a learning system (**see at least Pages 4 – 6 ¶ 83, 89, 93 – 132**). **Hane** discloses that the system extracts information from the program as a means of categorizing the program. The system continues on to use the extracted information (keywords) from a selected program and determines if the extracted information is part of the user's profile. If the system determines that the keywords are not part of the user's profile library it continues on to registering the keyword and making it a part of the user's profile.

Once this has been established, the system refers back to the newly updated user profile and provides further recommendations on programs that the user may watch. In other words, **Hane** discloses extracting keywords (characteristics) of one program, storing it in the user's profile, and using the newly updated user profile to determine whether specific characteristics show up in another program in order to recommend it to the user. That is to say, the system relates characteristics of one program to characteristics of another program.

Moreover, the system also provides a ranking of these programs ranging from highly probable that the user may watch to less probable. In other words, one of ordinary skill in the art would have recognized that the system is providing a ranking system according to a user's profile and determining the relevance that each program has according to the information that is stored in the user profile. As a result, a highly ranked program would contain all, if not most, of the user's characteristics, while the lower rank characteristics would contain very few characteristics that are shown in the higher ranked programs. In other words, the system provides the lower ranked programs because the system may have determined that they share specific characteristics amongst the higher ranked programs.

Although, **Hane** does disclose that the user provides specific parameters, **Hane** also discloses that the system expands on these parameters based on programs that the user may have shown some interest in. As a result, since the system is expanding and extracting keywords from previous programs the system is, indeed, relating, "...characteristics of one program to characteristics of another program."

Rejection under 35 USC 103

39. All rejections made towards the dependent claims are maintained due to the lack of a reply by the applicant in regards to distinctly and specifically point out the supposed errors in the Examiner's action in the prior Office Action (37 CFR 1.111). The Examiner asserts that the applicant only argues that the dependent claims should be allowable because the independent claims are unobvious and patentable over **Hane (US PGPub 2004/0083490 A1)**.

Conclusion

40. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerardo Araque Jr. whose telephone number is (571)272-3747. The examiner can normally be reached on Monday - Friday 8:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on (571) 272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/G. A./
Examiner, Art Unit 3689

/Dennis Ruhl/
Primary Examiner, Art Unit 3689